

Patent

KW-17

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Stefan Schiele

Serial No.: 10/550,166

Filed: March 22, 2004

For: COATING DEVICE FOR WATER-BASED LACQUER THAT IS DRIED BY NEAR-INFRARED LIGHT

Examiner: Josef Bürgmayr

Art Unit: 26

Mail Stop PCT
Assistant Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

REQUEST FOR WITHDRAWAL OF HOLDING OF ABANDONMENT

S I R:

In response to the Communication dated May 31, 2007 and the Notification of Abandonment dated February 26, 2006, applicant respectfully requests withdrawal of the holding of abandonment.

Applicant respectfully submits that, as required by 35 U.S.C. 371(c)(2), a translation of the International application was filed on September 20, 2005.

Submitted herewith is a return receipt postcard which acknowledges that the International application was filed with an English translation.

Also submitted herewith is a declaration by Matthew Lingley, an assistant in the office of Friedrich Kueffner, P.C. which states that the English translation of the International application with six claims was submitted with the original application.

A copy of the English translation of the International application including six claims as originally filed is also enclosed.

In view of the fact that a translation of the International application was filed with the original papers, it is respectfully submitted that the abandonment of the application should be withdrawn.

Respectfully submitted,
FRIEDRICH KUEFFNER

By:

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Friedrich Kueffner
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Dated: June 27, 2007

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 on June 27, 2007

By: F. Kueffner Date: June 27, 2007
Friedrich Kueffner

Patent

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DECLARATION

S I R:

I, Matthew Lingley, hereby declare:

that I am an assistant in the office of Friedrich Kueffner, P.C. at 317 Madison Avenue, Suite 910, New York, NY 10017;

that I have prepared the National phase of the above-identified International application for filing;

that the papers included a translation of the International application with six claims, and

that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Date: 6/27/07

Matthew Teugley
Signature

Mail Stop PCT
Commissioner for Patents, P.O. Box 1450
Alexandria, VA 22313-1450

Sir: Please stamp the date of receipt and
the serial number, if appropriate, hereon,
and return by mailing. Thank you.

Documents:

Int. Application w/ English Translation
 Two sheets of drawings
 Unsigned Declaration
 Preliminary Amendment
 PTO-2038 (\$500.00)

10/550166

PTO: Please stamp and return

Date Documents Mailed: September 20, 2005

For Application

Docket No: KW-17PCT

Applicant: Schiele

Serial No: not known (PCT/EP04/02971) Int. Filing Date: 3/22/04

Title: COATING DEVICE FOR WATER-BASED LACQUER.....

EV 632 873 054 US

J004 Rec'd PCT/PTO 20 SEP 2005

COATING DEVICE FOR WATER-BASED LACQUER THAT IS DRIED BY
NEAR-INFRARED LIGHT

The present innovation relates to a coating device by means of which a water-soluble compound is applied to at least one edge of moving elongated workpiece.

Nowadays there is an increasing requirement to coat the edges or parts of the edges of an elongated workpiece, for example, a parquet flooring board, with a compound, for example, a lacquer and/or an adhesive in continuously operating installations. In this case, the compound is preferably water-soluble in order to avoid negative influences on people and the environment.

It is thus the object of the present innovation to provide a coating device by means of which the water-soluble compounds can be applied to at least parts of the edge of a moving elongated workpiece and can be dried.

The object is solved according to the innovation by a coating device by means of which a water-soluble compound can be applied to at least parts of the edge of a moving elongated workpiece which has at least one device for applying the compound and at least one near infrared (NIR) drying device arranged thereafter in the direction of movement of the workpiece.

It was extremely astonishing and unexpected for the person skilled in that art that elongated workpieces, such as profiles made of wood, for example, parquet flooring boards, or plastic as well as single components, for example, cross-beams of a window can be coated with a water-soluble compound very efficiently and with a very high quality using the device according to the innovation. The device according to the innovation can be manufactured simply and inexpensively and has proved to be extremely

robust in continuous operation. The water-soluble compound applied dries so rapidly using the NIR infrared drying that transport speeds of up to 100 m/min can be achieved for the workpiece to be coated.

NIR drying in the sense of the innovation is infrared drying where the radiation has a wavelength of 600-1400 nm, preferably 800-1200 nm.

The NIR drying preferably consists of a plurality of modules which can be aligned especially preferably with respect to the workpiece to be coated. Accordingly the NIR drying is preferably arranged so that it can be adjusted in height and/or tilted.

Furthermore, the drying modules are preferably regulated according to the application medium and/or the transport speed; that is, in the case of an application medium having a high water content and/or very high transport speeds, either a plurality of NIR drying modules arranged in the direction of travel of the workpiece are used and/or their intensity is regulated as a function of the water fraction and/or the transport speed. By means of this preferred embodiment of the innovation, it is possible to match the drying exactly to the given process.

Furthermore, the coating device according to the innovation preferably has cooling plates by means of which the workpiece to be coated or the conveyor belts used to transport the workpiece can be cooled to avoid these becoming too hot during drying.

Any application head known to the person skilled in the art is suitable for applying the water-soluble compound. However, the application head preferably has an application nozzle by means of which the water-soluble compound is applied to the edge to be coated. Furthermore, the

application device preferably has a suction nozzle by which means excess coating material is extracted. Such coating heads are described, for example, in DE 42 07 090, WO 02/053296, WO 02/055215 and WO 02/055214. These patent applications are introduced herewith as reference and are thus valid as part of the disclosure.

The innovation is explained hereinafter with reference to Figures 1 and 2. These explanations are merely examples and do not restrict the general idea of the innovation.

Fig. 1 shows a perspective view of the device according to the innovation and

fig. 2 shows a front view of the device according to the innovation.

Figure 1 shows the device according to the innovation. A workpiece 4 whose edges are to be coated at least partly with a water-soluble compound, for example, a lacquer and/or an adhesive, passes through the device from left to right as indicated by the arrows. The workpiece 4 is transported by the continuous conveyor belts 5. The coating device according to the innovation has an application head 1 by which means the water-soluble compound is applied to the edge. This application head has a coating nozzle (not shown) which applies the water-soluble compound to the edge to be coated and a suction nozzle (not shown) by which means the excess material is extracted. The extraction nozzle is connected to a vacuum installation and a separator (each not shown). Furthermore, the device according to the innovation has two NIR drying modules located after the application head, which emit near-infrared radiation and thereby dry the coated edge. The drying modules 2 are arranged tiltably in the present example so that the radiation can be aligned as perpendicularly as possible to the surface to be dried. In

order to avoid overheating of the conveyor belts 5 or the workpiece 4 transported thereon, lateral cooling plates 3 are provided.

The person skilled in the art recognizes that the application device 1, the near infrared emitter 2 and the cooling plates 3 can also be arranged on the other side of the conveyor belt.

Figure 2 shows a front view of the device according to the innovation wherein on this occasion, the device according to the innovation has respectively one application device, cooling plates and an NIR drying module to the right and to the left of the workpiece to be coated. Shown on the left is the application device 1 which coats an edge of the workpiece 4 shown by a thicker line at the bottom using an application nozzle (not shown). The dashed lines show the suction channel which is connected to the suction nozzle (not shown) which extracts excess material from the coated edge. The NIR drying modules arranged thereafter on this side are covered by the coating device 1. On the right-hand side the coating device was omitted for reasons of clarity and merely the drying module 2 is shown which irradiates the coated surface at an angle obliquely from below in order to dry this. The device according to the innovation also has cooling plates 3 which especially protect the conveyor belts 5 used to transport the workpiece to be coated in the plane of the paper, from overheating.

CLAIMS

1. A coating device by means of which a water-soluble compound is applied to at least parts of an edge of a moving elongated workpiece (4), characterised in that said device comprises at least one device (1) for applying a compound and at least one NIR drying module (2) arranged thereafter in the direction of movement of the workpiece.
2. The coating device according to claim 1, characterised in that the NIR drying consists of a plurality of modules.
3. The coating device according to any one of the preceding claims, characterised in that the NIR drying can be aligned, preferably can be adjusted in height and/or tilted.
4. The coating device according to claim 2, characterised in that the module can be regulated depending on the application medium and/or the transport speed.
5. The coating device according to any one of the preceding claims, characterised in that it comprises cooling plates (3).
6. The coating device according to any one of the preceding claims, characterised in that the device (1) comprises an application nozzle and a suction nozzle.

25 MAY 2007

United States Patent and Trademark Office



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RECEIVED
MAY 31 2007

In re Application of
Schiele
Application No. 10/550,166
PCT No.: PCT/EP04/02971
Int. Filing Date: 22 March 2004
Priority Date: 21 March 2003
Atty. Docket No.: KW-17PCT
For: Coating Device For Water-Based Lacquer
That Is Dried By Near-Infrared Light

FRIEDRICH KUEFFNER, P.C.

DECISION

This is in response to the "Request For Withdrawal Of Holding Of Abandonment" filed on 21 March 2007.

DISCUSSION

In a Decision mailed on 13 February 2007, applicants' request for withdrawal of the Notification of Defective Response filed on 22 August 2006 was treated as follows:

Review of the Image File Wrapper for this application reveals that the published international application (in the German language) includes 6 claims, while the translation filed on 20 September 2005 included 5 claims, as well as a marked-up copy of a set of 5 claims. No set of 6 claims, corresponding to the claim set present in the published international application, is currently of record in the application file. In the event that applicant believes that the absence of a 6-claim set is the result of error, submission of a copy of the 6-claim set and proof of its date of filing would be appropriate.

With regard to counsel's argument that the 5-claim set is the appropriate set of claims for the translation, counsel is advised that the translation of the international application referred to by 35 U.S.C. 371(c)(2) is a translation of the international application as filed (or as published), while the requirement to furnish translations of annexes to the international application arises separately, under 35 U.S.C. 371(c)(5). Since the published international application included 6 claims, while the translation only includes 5, the translation clearly is not a proper translation of the international application as filed (or published). Therefore, the translation does not satisfy the requirements of 35 U.S.C. 371(c)(2). As such, the mailing of both the Notification of Missing Requirements on 08 May 2006 and the Notification of Defective Response on 10 August 2006 was appropriate. Since applicants have not timely complied with the requirements set by those Notifications, this international application stands **ABANDONED** with respect to the national stage in the United States.

In response, applicants argue that

As stated in the response to Notification of Missing Requirements dated May 8, 2006, it is respectfully submitted that the application was filed on September 20, 2005 with an English translation of the original International application and an English translation of the application as amended during the International phase.

The English translation of the original International application contains claims 1-6 and the English translation of the amended version contains claims 1-5.

A copy of the translation of the International application as filed is attached hereto. Also attached is a copy of the translation of the application as amended.

In view of the fact that a translation of the International application was filed with the original papers, it is respectfully submitted that the abandonment of the application should be withdrawn.

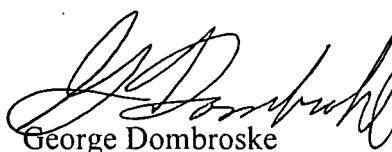
In view of applicants' arguments, an additional review of the contents of the IFW has been conducted but, as was the case previously, no copy of a 6-claim claim set appears to have been present in the application file prior to receipt of the instant (21 March 2007) correspondence. Although applicants suggest that a translation of the originally-filed claims was submitted along with the correspondence filed on 20 September 2005, no additional evidence (e.g., a properly itemized and date-stamped return postcard receipt) has been adduced to show that such a translation was in fact received. In the absence of such evidence, it would not be appropriate to conclude that the translation of the 6 original claims was actually timely filed in the USPTO and, as such, this international application remains **ABANDONED** with respect to the national stage in the United States.

CONCLUSION

The application remains **ABANDONED**.

If reconsideration on the merits of this petition is desired, a proper response must be filed within **TWO (2) MONTHS** from the mail date of this decision (extendable under 37 CFR 1.136(a)).

Please direct any further correspondence with respect to this matter to the Assistant Commissioner for Patents, Mail Stop PCT, P.O. Box 1450, Alexandria, VA 22313-1450, and address the contents of the letter to the attention of the Office of PCT Legal Administration.



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